

# Notice of Allowability

Application No.

09/814,634

Examiner

Justin P. Misleh

Applicant(s)

KATOH ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed May 10, 2006.
2. ☒ The allowed claim(s) is/are 1 - 5, 7 - 11, 22 - 26, and 28 - 32 (now renumbered 1, 2, 7 - 9, 3 - 6, 10, 15, 16, 11 - 13, 17 - 20, and 14, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**VIVEK SRIVASTAVA**  
PRIMARY EXAMINER

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gunnar G. Leinberg on July 20, 2006.

The application has been amended as follows:

### CLAIMS

- Please delete **Claim 24** and replace with the following:

“An imaging device analyzing system, the system comprising:  
a source for spectral sensitivity curves for two or more of the multiple color channels in a color imaging device; and  
an image quality processing system that determines an image quality value for the color imaging device from the spectral sensitivity curves for the two or more of the multiple color channels in the color imaging device;  
wherein the image quality processing system further comprises a  $\mu$ -factor processing system that determines a  $\mu$ -factor based on the obtained spectral sensitivity curves, wherein the image quality value is based on the  $\mu$ -factor and at least one other quality factor;  
wherein the image quality processing system determines the image quality value based on a relationship between the determined  $\mu$ -factor and the at least one other quality factor, the image quality value being a substantial average of a minimum and a maximum value for the at least one quality factor associated with the determined  $\mu$ -factor.”
- Please delete **Claim 25** and replace with the following:

“An imaging device analyzing system, the system comprising:

a source for spectral sensitivity curves for two or more of the multiple color channels in a color imaging device; and

an image quality processing system that determines an image quality value for the color imaging device from the spectral sensitivity curves for the two or more of the multiple color channels in the color imaging device;

wherein the image quality processing system further comprises a  $\mu$ -factor processing system that determines a  $\mu$ -factor based on the obtained spectral sensitivity curves, wherein the image quality value is based on the  $\mu$ -factor and at least one other quality factor;

wherein the at least one other quality factor is a delta E factor.”

2. **Claims 1 – 5, 7 – 11, 22 – 26, and 28 – 32 (now renumbered 1, 2, 7 – 9, 3 – 6, 10, 15, 16, 11 – 13, 17 – 20, and 14, respectively)** are allowed.

3. The following is an examiner’s statement of reasons for allowance:

The **closest prior art discloses** a method and a corresponding apparatus for determining a color rendering capability of at least one color imaging device with multiple color channels, wherein determining said capability at least includes: (a) obtaining spectral sensitivity curves for two or more of said color channels; (b) determining an image quality value for the color imaging device based on said obtained spectral sensitivity curves; and (c) evaluating the color rendering capability of the color imaging device based on the determined image quality value.

However, the **closest prior art does not teach or fairly suggest** wherein determining the image quality value further includes **ONE** of the following: (d) first determining a Universal Measure of Goodness factor and determining the image quality value based on the determined Universal Measure of Goodness factor and at least one other quality factor; (e) first determining

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a  $\mu$ -factor and determining the image quality value based on the determined  $\mu$ -factor and at least one other quality factor, wherein the image quality value is based on a relationship between the determined  $\mu$ -factor and the at least one other quality factor such that the image quality value is a substantial average of a minimum and a maximum value of the at least one other quality factor associated with the determined  $\mu$ -factor; (f) first determining a  $\mu$ -factor and determining the image quality value based on the determined  $\mu$ -factor and at least one other quality factor, wherein the at least one other quality factor is a delta E factor; and (g) first determining a  $\mu$ -factor and determining the image quality value based on the determined  $\mu$ -factor and at least one other quality factor, wherein the at least one other quality factor is a color difference metric value.

Additionally, the **closest prior art also does not teach or fairly suggest** wherein the evaluating further comprises wherein the evaluating further comprises comparing the image quality value of the color imaging device against respective image quality values for two or more other color imaging devices.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Vivek Srivastava can be reached on 571.272.7304. The fax phone number for the organization where this application or proceeding is assigned is 571.273.3000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
July 22, 2006



VIVEK SRIVASTAVA  
PRIMARY EXAMINER